

REMARKS

Drawings

The Examiner has objected to the drawings under 35 C.F.R. §1.83 (a). The drawings must show every feature of the invention as recited in claim 24.

Applicant respectfully disagrees with the Examiner. However, Applicant has withdrawn claims 24 without prejudice.

Claim Rejections 35 U.S.C. § 112, second paragraph

The Examiner has rejected claims 1 and 19 under 35 U.S.C. §112, second paragraph, for being indefinite.

Claim 1

Applicant respectfully disagrees with the Examiner. Applicant has amended claim 1 of Applicant's claimed invention.

Claim 1, as amended, of Applicant's claimed invention claims a device including a multilayer stack (250) of thin films, the thin films (210, 220, 230) including a low-dielectric constant material, the thin films having pores (115), wherein each thin film within the multilayer stack has a thickness (221) of less than

about 14.0 nm, wherein different porogens or organic components may be used to form different thin films (210, 220, 230). See Figure 1.

In one embodiment, the deposition and the treatment of each thin film are alternated and repeated as many times as needed to obtain a multilayer stack (250) with the desired total multilayer stack thickness (251). See Figure 1. Also, see paragraph [0030] on page 9 of the specification.

In one embodiment, each thin film (210, 220, 230) within the multilayer stack (250) has the same thickness. See Figure 1. Also, see paragraph [0031] on page 9 of the specification.

In one embodiment, the thin film (220) in the multilayer stack (250) has a thin film thickness (221) that is less than about 14 nm. See Figure 1. Also, see paragraph [0013] on page 5 of the specification.

In one embodiment, different porogens or organic components may be used to form different thin films. See Figure 1. Also, see paragraph [0024] on page 8 of the specification.

In view of the foregoing, Applicant respectfully requests the Examiner to withdraw the rejections to claim 1 under 35 U.S.C. §112, second paragraph, since the claim particularly points out and distinctly claims the subject matter which Applicant regards as his invention. Thus, claim 1 is definite.

Claims 2-7 are dependent on claim 1, as amended.

In view of the foregoing, Applicant respectfully requests the Examiner to also withdraw the rejections to claims 2-7 under 35 U.S.C. §112, second paragraph, since the claims particularly point out and distinctly claim the subject matter which Applicant regards as his invention. Thus, claims 2-7 are also definite.

Claim 19

Applicant respectfully disagrees with the Examiner. Applicant has amended claim 19 of Applicant's claimed invention.

Claim 19, as amended, of Applicant's claimed invention claims a multilevel interconnect system for a device including: an underlying metal level; a multilayer stack (250) located over the underlying metal level, the multilayer stack including: thin films (210, 220, 230), the thin films having a low dielectric constant, the thin films having pores (115), wherein the thin films are formed with a chemical vapor deposition process with reactants that include a porogen or precursor having 10.0-25.0 weight % organic components; and an overlying metal level located over the multilayer stack. See Figure 1.

In one embodiment, the deposition and the treatment of each thin film are alternated and repeated as many times as needed to obtain a multilayer stack (250) with the desired total multilayer stack thickness (251). See Figure 1. Also, see paragraph [0030] on page 9 of the specification.

In one embodiment, each thin film (210, 220, 230) within the multilayer stack (250) has the same thickness. See Figure 1. Also, see paragraph [0031] on page 9 of the specification.

In one embodiment, the thin film (220) in the multilayer stack (250) has a thin film thickness (221) that is less than about 14 nm. See Figure 1. Also, see paragraph [0013] on page 5 of the specification.

In one embodiment, a chemical vapor deposition process may be used to deposit the thin films using a porogen or precursor having 10.0-25.0 weight % organic components. See Figure 1. Also, see paragraph [0024] on page 8 of the specification.

In view of the foregoing, Applicant respectfully requests the Examiner to withdraw the rejections to claim 19 under 35 U.S.C. §112, second paragraph, since

the claim particularly points out and distinctly claims the subject matter which Applicant regards as his invention. Thus, claim 19 is definite.

Claims 20-23 are dependent on claim 19, as amended.

In view of the foregoing, Applicant respectfully requests the Examiner to also withdraw the rejections to claims 20-23 under 35 U.S.C. §112, second paragraph, since the claims particularly point out and distinctly claim the subject matter which Applicant regards as his invention. Thus, claims 20-23 are also definite.

Claim Rejections 35 U.S.C. § 102 (b)

Claims 24 and 26

The Examiner has rejected claims 24 and 26 under 35 U.S.C. §102 (b) as being anticipated by Gnade et al. (U.S. 5,569,058).

Applicant respectfully disagrees with the Examiner. However, Applicant has withdrawn claims 24 and 26 without prejudice.

Claim Rejections 35 U.S.C. § 103 (a)

Claim 25

The Examiner has rejected claim 25 under 35 U.S.C. §103 (A) as being unpatentable over Gnade et al. (U.S. 5,569,058) in view of Gnade et al. (U.S. 5,561,318, of record) .

Applicant respectfully disagrees with the Examiner. However, Applicant has withdrawn claim 25 without prejudice.

Conclusion

Applicant believes that all claims pending, including amended claims 1 and 19, of Applicant's claimed invention, are now in condition for allowance so such action is earnestly solicited at the earliest possible date.